FUSE BOXES WITH GUARD RINGS FOR INTEGRATED CIRCUITS AND INTEGRATED CIRCUITS INCLUDING THE SAME

Abstract of the Disclosure

Integrated circuit devices and fuse boxes have a fuse line at a fuse portion of the integrated circuit device and a first insulating layer on the fuse line. A first guard ring pattern is provided that encloses the fuse line on the first insulating layer and a second insulating layer is provided on the first guard ring pattern and the first insulating layer. A second guard ring pattern that encloses the fuse line is provided on the second insulating layer and a passivation layer is provided on the second insulating layer and the second guard ring pattern. The passivation layer defines at least a portion of a fuse opening having a sidewall in the first and second insulating layers and extends on the sidewall of the fuse opening to at least the first insulating layer.

Doc # 348666